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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/840,071	04/24/2001	Hiroshi Arita		3446

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MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.
1800 DIAGONAL ROAD
SUITE 370
ALEXANDRIA, VA 22314

EXAMINER

NGUYEN, TAN D

ART UNIT	PAPER NUMBER
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3629

DATE MAILED: 05/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/840,071

Applicant(s)

ARITA ET AL.

Examiner

Tan Dean D. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19,20 and 22-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19,20 and 22-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 09/290,170.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/9/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/9/05 has been entered.

Claim Rejections - 35 USC § 112

2. Claims 19, 22-23, 28, 20, 24-29, and 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 19, it's not clear the intention of the underlined line before each element, i.e. "___a source"? Applicant is requested to remove the underline to avoid confusion.

Claim 19, part (c) calls for "interconnection adjustment equipment" but fails to include structural elements dealt with "interconnection adjustment". Current recitation of "which receives information ...which transmits control command to" is not positive claimed and suitable for an apparatus claim since it's not clear how these relating to "interconnection adjustment". There must be some functions dealt with adjustment issues.

Note that in an apparatus, only features of an apparatus which may be recited either structurally or functionally or in other word, in term of structure rather than

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function, receives patentable weight. "An apparatus claims cover what a device is, not what a device does." See *In re Hewlett-Packard Co. v. Bausch & Lomb, Inc.* 909 F. 2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir 1990). Based on this language, the steps of "which receives information ... which transmits a control command ..." in step (c) and "which receives the control commandand carries out settlement.." have no patentable weight since it deals what a device does and not what a device is. Noted also that the phrase "a source of generated power" is also not positive claim in an apparatus claim and does not have much patentable weight since a source has no elemental structure.

Claim 19, part (d) calls for "interchange administration equipment" but fails to include structural elements dealt with "interchange administration". Current recitation of "which receives the control command ...which transmits control command to" is not positive claimed and suitable for an apparatus claim since it's not clear how these relating to "interchange administration". There must be some functions dealt with the administration issues.

Claim 20, which has similar limitations (a), (b), (c), and (d) as in claim 19, is rejected for the same reason set forth in claim 19 above with respect to parts (c) and (d) above.

Claim 30, which has similar limitations (a), (b), (c), and (d) as in claim 19, is rejected for the same reason set forth in claim 19 above with respect to parts (c) and (d) above.

Claims 22-23, 28 are vague and indefinite because the claims are written in inactive/ passive state which are vague and confuse for an apparatus claims.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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6. Claims 30 (apparatus¹), 19, 22-23, 28 (apparatus²), and 20, 24-26, 27, 29 (apparatus³) are rejected under 35 U.S.C. 103(a) as being unpatentable over ARTICLE 7/95 ("New Scientist ...") in view of ARTICLE 3/91 and HART (US 6,236,949).

As for independent apparatus¹ claim 30, ARTICLE 7/95 fairly disclose an energy interchange system comprising:

(a) a source of generated energy being in one governmental area, said generated energy being transmitted to another governmental area, said one governmental area and said another governmental area being separated by at least one governmental area border line along an energy path. ARTICLE 7/95 teaches the claimed invention except for:

(b) energy measuring equipment mounted on the energy path for measuring an amount of the generated power transmitted,

(c) interconnection adjustment equipment which *receives information* ... and which *transmits* a control command to said one and said another governmental areas based upon the amount of the generated power as measured by the energy measuring equipment; and

(d) an interchange administration equipment which *receives* the control command from the interconnection adjustment equipment, said control command including information regarding CO2 emission right and *carries out* settlement based upon the CO2 emission right.

Note that however, in an apparatus, only features of an apparatus which may be recited either structurally or functionally or in other word, in term of structure rather than function, receives patentable weight. "An apparatus claims cover what a device is, not what a device does." See *In re Hewlett-Packard Co. v. Bausch & Lomb, Inc.* 909 F. 2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir 1990). Based on this language, the steps of "which receives information ... which transmits a control command ..." in step (c) and "which receives the control commandand carries out settlement.." have no patentable weight since it deals what a device does and not what a device is. Noted also that the phrase "a source of generated power" is also not positive claim in an apparatus claim and does not have much patentable weight since a source has no elemental structure. Therefore, ARTICLE 7/95 teaches the claimed invention except for:

(b) energy measuring equipment mounted on the energy path for measuring an amount of the generated power transmitted,

(c) interconnection adjustment equipment, and

(d) an interchange administration equipment.

In a similar apparatus for protecting, controlling and managing electricity distribution system internationally or involved many governmental areas, ARTICLE 3/91 discloses the use of various control and communication systems necessary to effectively (1) regulate power flows, (2) meter (measure), (3) and supply data to SCADA and Energy-Management Systems among multiple parties {see page 23, left column, under "Technology is available"}. It would have been obvious to modify the international

power grid of ARTICLE 7/95 by including energy meter/measuring equipment, interconnection control equipment and administration equipment (management equipment) as taught by ARTICLE 3/91 in order to effectively (1) regulate power flows, (2) meter (measure), (3) and supply data to SCADA and Energy-Management Systems among multiple parties.

In a similar apparatus for protecting, controlling and managing electricity distribution system, HART disclosing:

(b) energy measuring equipment mounted on the energy path for measuring an amount of the generated power transmitted {see col. 1, lines 25-50 (or c1:25-50)},

(c) interconnection adjustment equipment (adjusting the loads), {see c1:62}

(d) an interchange administration equipment (managing the loads to control machines, or determine alarm conditions) {see c1:62-64} for the following benefits: (1) to minimize energy losses due to phase difference, (2) minimize the amount of harmonics that are present, (3) ability to detect the presence and magnitude of faults in the power system, and (4) to adjust and manage the loads and determine alarm conditions more efficiently use of the power {see c1:50-67}. It would have been obvious to modify the apparatus of ARTICLE 7/95 and ARTICLE 3/91 by including elements (b), (c), and (d) as taught by HART for one of the following benefit: (1) to minimize energy losses due to phase difference, (2) minimize the amount of harmonics that are present, (3) ability to detect the presence and magnitude of faults in the power system, and (4) to adjust and manage the loads and determine alarm conditions more efficiently use of the power {see c1:50-67}.

As for independent apparatus² claim 19, which is similar to the **independent apparatus¹ claim 30** above, it's rejected for the same reasons set forth in claim 30 above.

As for dep. claim 22 (part of 19), this is inherently included in the teaching of ARTICLE 7/95 page 4, 1st – 4th paragraphs or page 7, 2nd full paragraph. Moreover, this limitation does not carry any patentable weight since it's not positively claimed. What are the structures?

As for dep. claim 23 (part of 19), this is inherently included in the teaching of ARTICLE 7/95 page 4, 1st – 4th paragraphs, or ARTICLE 3/91 page 23, left column, last paragraph "energy storage". Moreover, this limitation does not carry any patentable weight since it's not positively claimed. What are the structures? Furthermore, duplicate of parts for multiple effects is well known, 2nd government to 3rd government, and would have been obvious to a skilled artisan. See *In re Hazra*, 124 UQ 378.

As for dep. claim 28 (part of 19), this is inherently included in the teaching of ARTICLE 7/95 page 4, 2nd – 4th paragraphs, or in HART as shown in HART col. 2. Alternatively, the use of capacitor or power storage is well known in the power transmission system to store electrical energy for a specific use and would have been obvious to a skilled artisan to implement this capacitor to meet certain needs.

As for independent apparatus³ claim 20, which is similar to the **independent apparatus¹ claim 30** above, it's rejected for the same reasons set forth in claim 30 above. As for the limitation of "wherein date and time information is transmitted ... by transmission", this carries no patentable weight since it has no structural elements and

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is written in a negative/inactive state which is improper for an apparatus claim. Note also that language such as “time information permitting compensation for the time delay” also has no patentable weight since it merely indicates the intended use of the information and has no structural or functional elements.

As for dep. claims 24-26 (part of 20), which further limit the “time delay compensation” of claim 20, since the issue of “compensation for the time delay” carries no patentable weight in claim 20 above, these further limitations also have no patentable weight.

As for dep. claim 27 (part of 20), which further limit the “time information is transmitted” of claim 20 above, since the issue of “wherein date and time information is transmitted” carries no patentable weight in claim 20 above, these further limitations also have no patentable weight.

As for dep. claim 29 (part of 20), which has the same limitation as in dep. 28 above, it's rejected for the same reason set forth in dep. claim 28 above.

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7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through private PAIR only. For more information about the PAIR system, see <http://pair-direct@uspto.gov>. Should you have any questions on access to the private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

In receiving an Office Action, it becomes apparent that certain documents are missing, e. g. copies of references, Forms PTO 1449, PTO-892, etc., requests for copies should be directed to Tech Center 3600 Customer Service at (571) 272-3600, or e-mail CustomerService3600@uspto.gov.

Any inquiry concerning the merits of the examination of the application should be directed to Dean Tan Nguyen at telephone number (571) 272-6806. My work schedule is normally Monday through Friday from 6:30 am - 4:00 pm. I am scheduled to be off every other Friday.

Should I be unavailable during my normal working hours, my supervisor John Weiss may be reached at (571) 272-6812. The FAX phone numbers for formal communications concerning this application are (703) 872-9306. My personal Fax is (571) 273-6806. Informal communications may be made, following a telephone call to the examiner, by an informal FAX number to be given.

dtn
May 16, 2005


DEAN T. NGUYEN
PRIMARY EXAMINER